



Instrumented Baseball

David Adams | Mathew Brown | Riley Ferrer | Yanni Giannareas | Charles Whitaker

Meet Team 516



David Adams

*Design
Engineer*



Mathew Brown

*Mechatronics
Engineer*



Riley Ferrer

*Manufacturing
Engineer*



Yanni Giannareas

*Systems
Engineer*



Charles Whitaker

Test Engineer

Riley Ferrer

Sponsor and Advisor



Dr. William Oates, P.E.

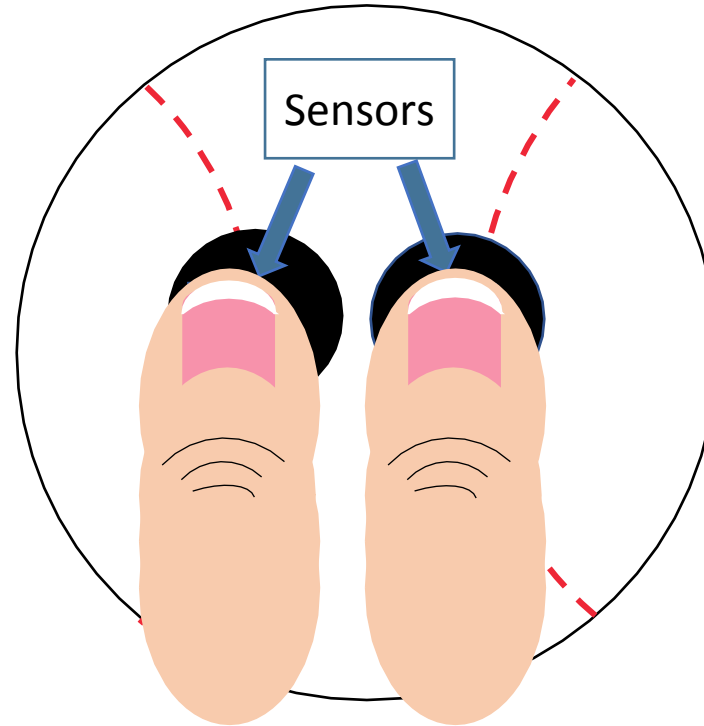
*FAMU-FSU
College of Engineering*

Riley Ferrer

Project Objective



Develop technology to measure dynamic fingertip forces on a baseball



Injury Prevention



Tailored Routines



Critique Pitching Form

Riley Ferrer

Challenges



Manufacturing

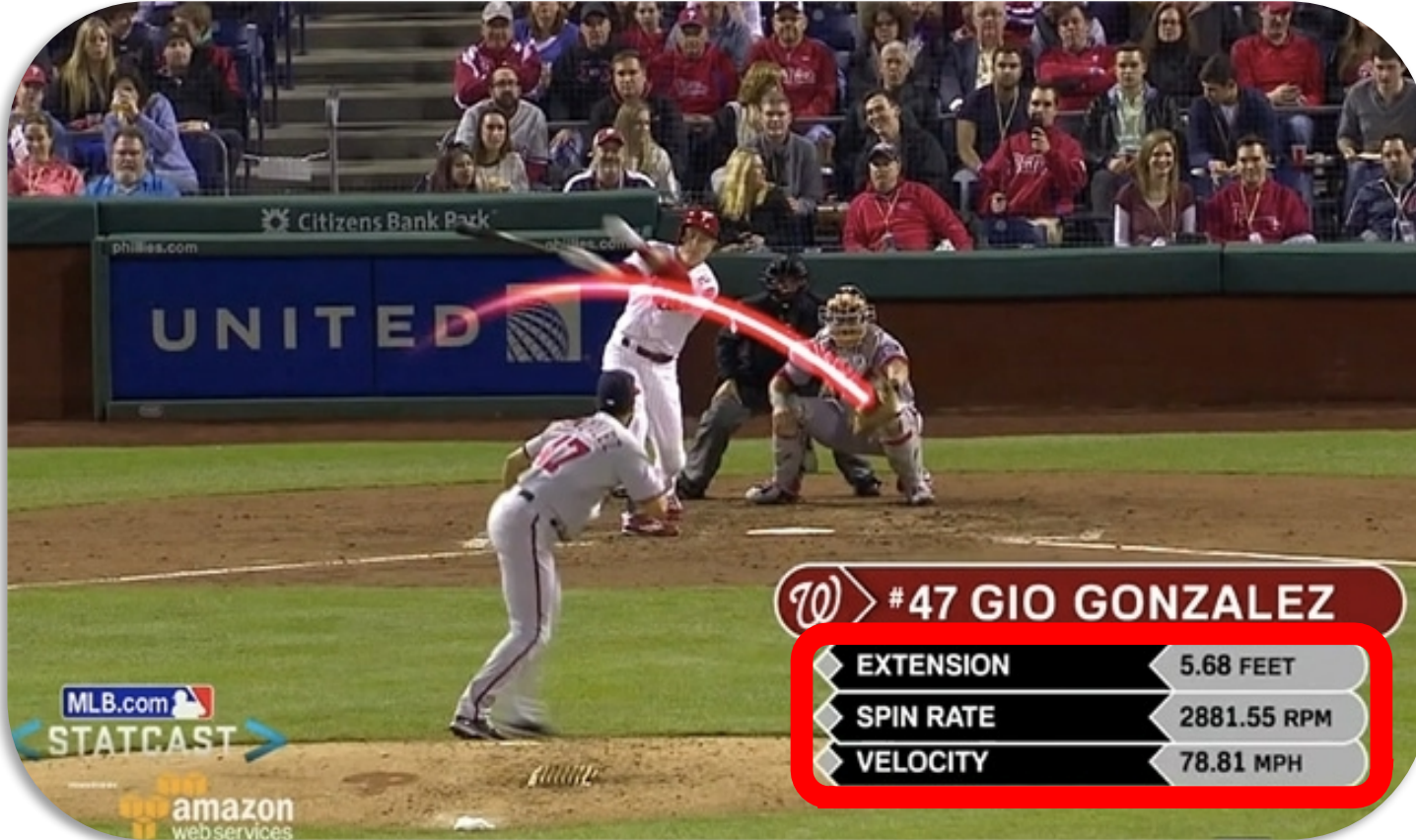


Design



Riley Ferrer

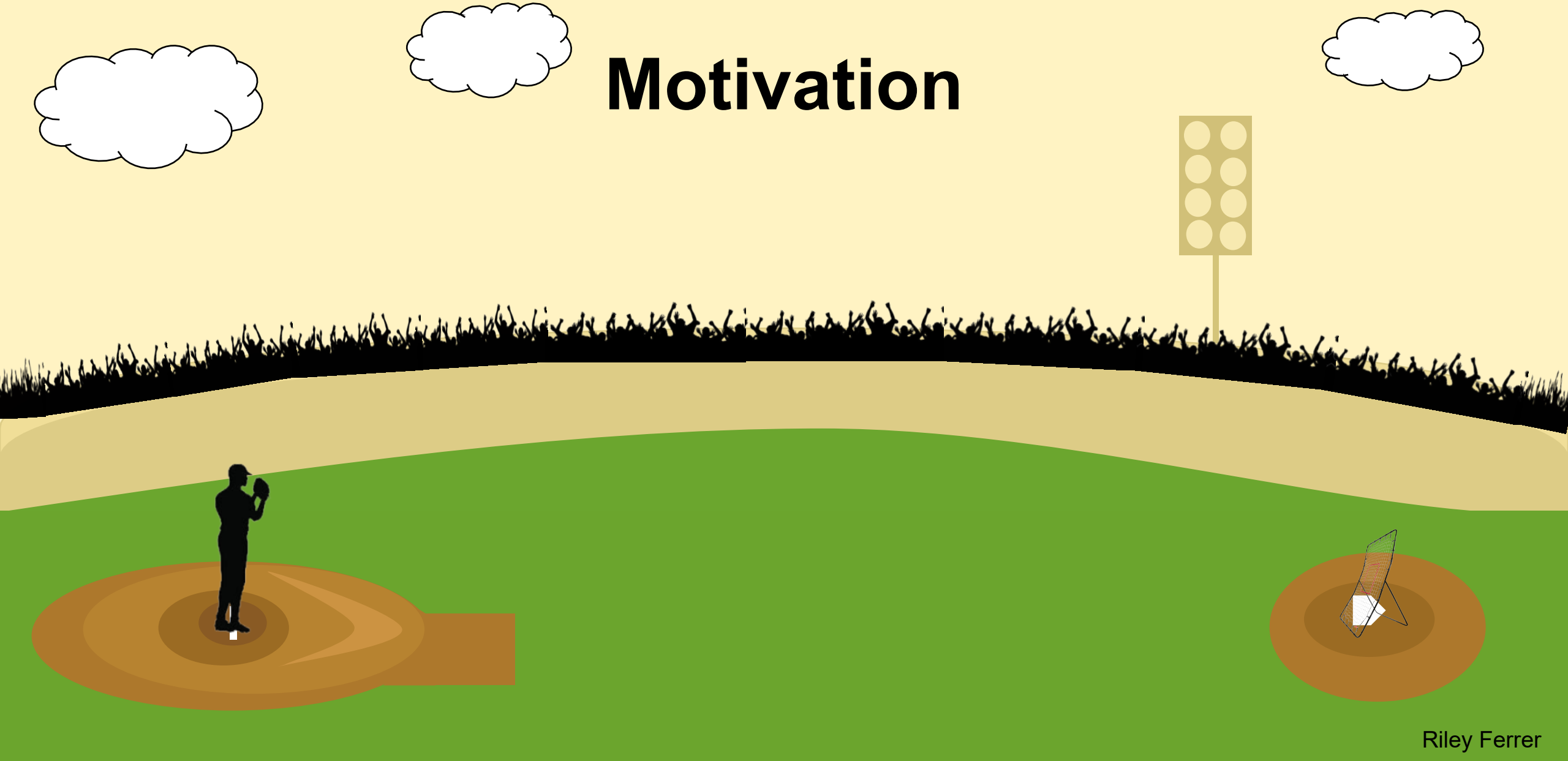
Background



Your goal shouldn't be to buy players. Your goal should be to buy wins. In order to buy wins, you need to buy runs. - Michael Lewis, Moneyball

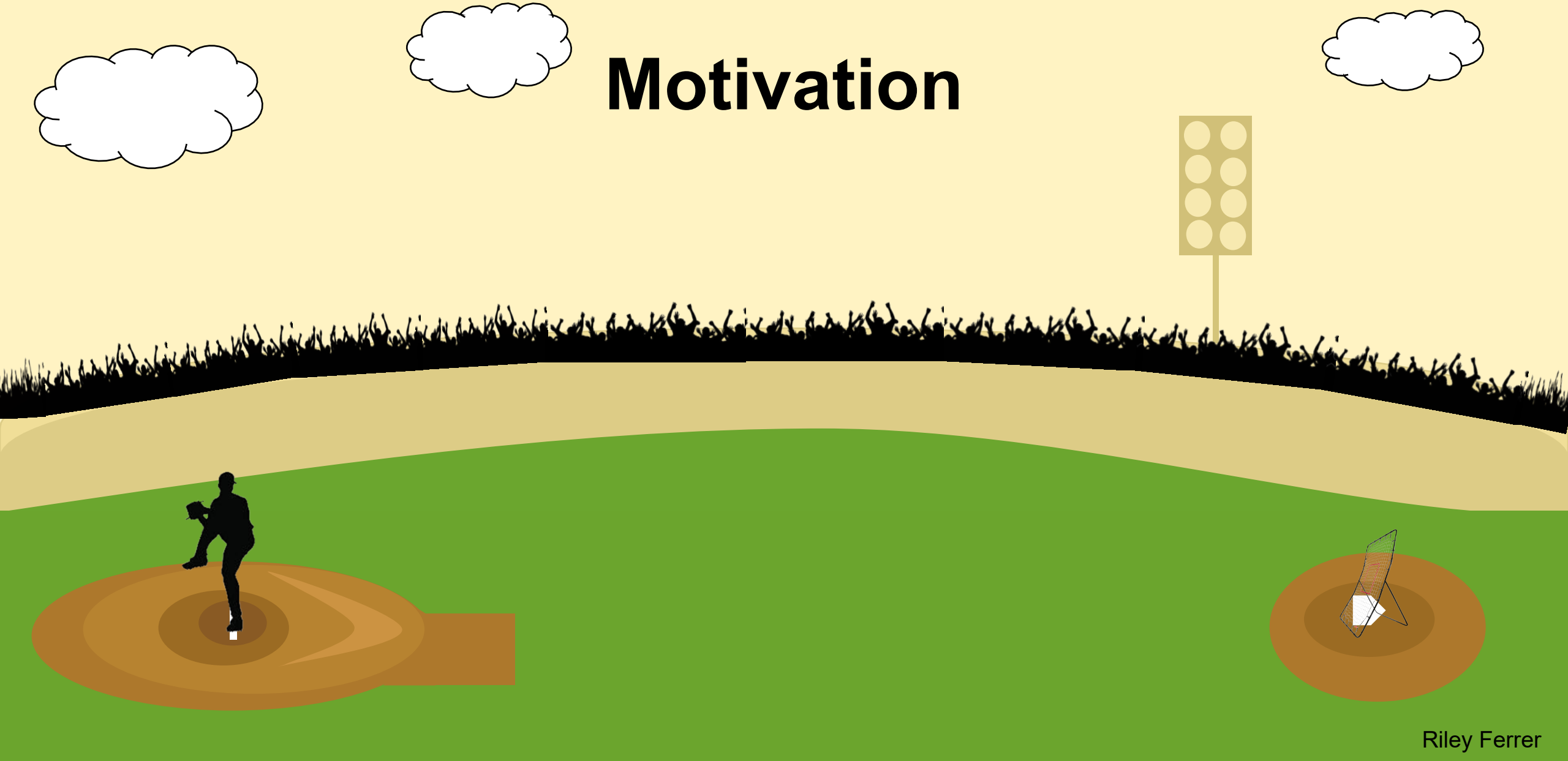
Riley Ferrer

Motivation



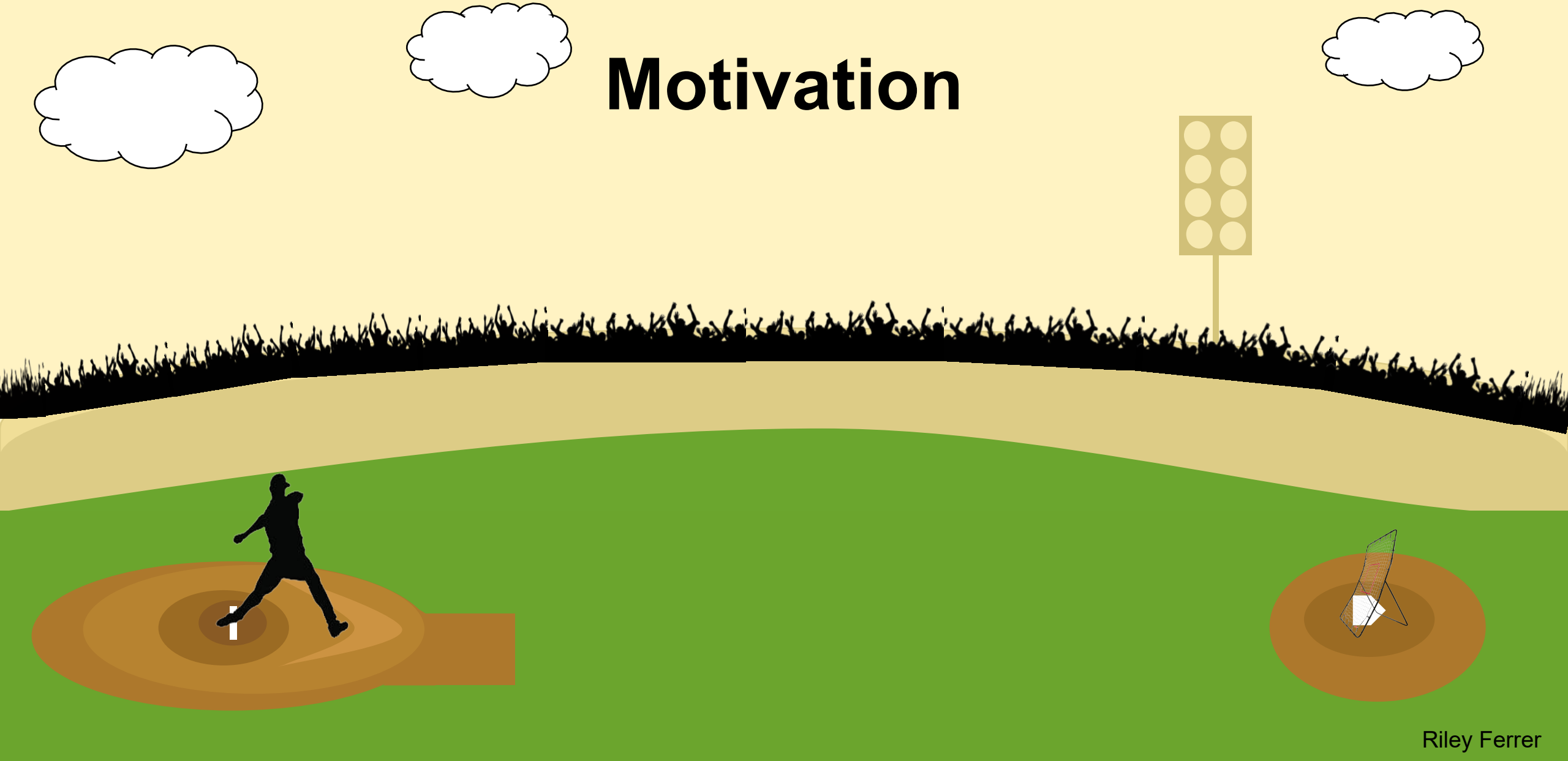
Riley Ferrer

Motivation



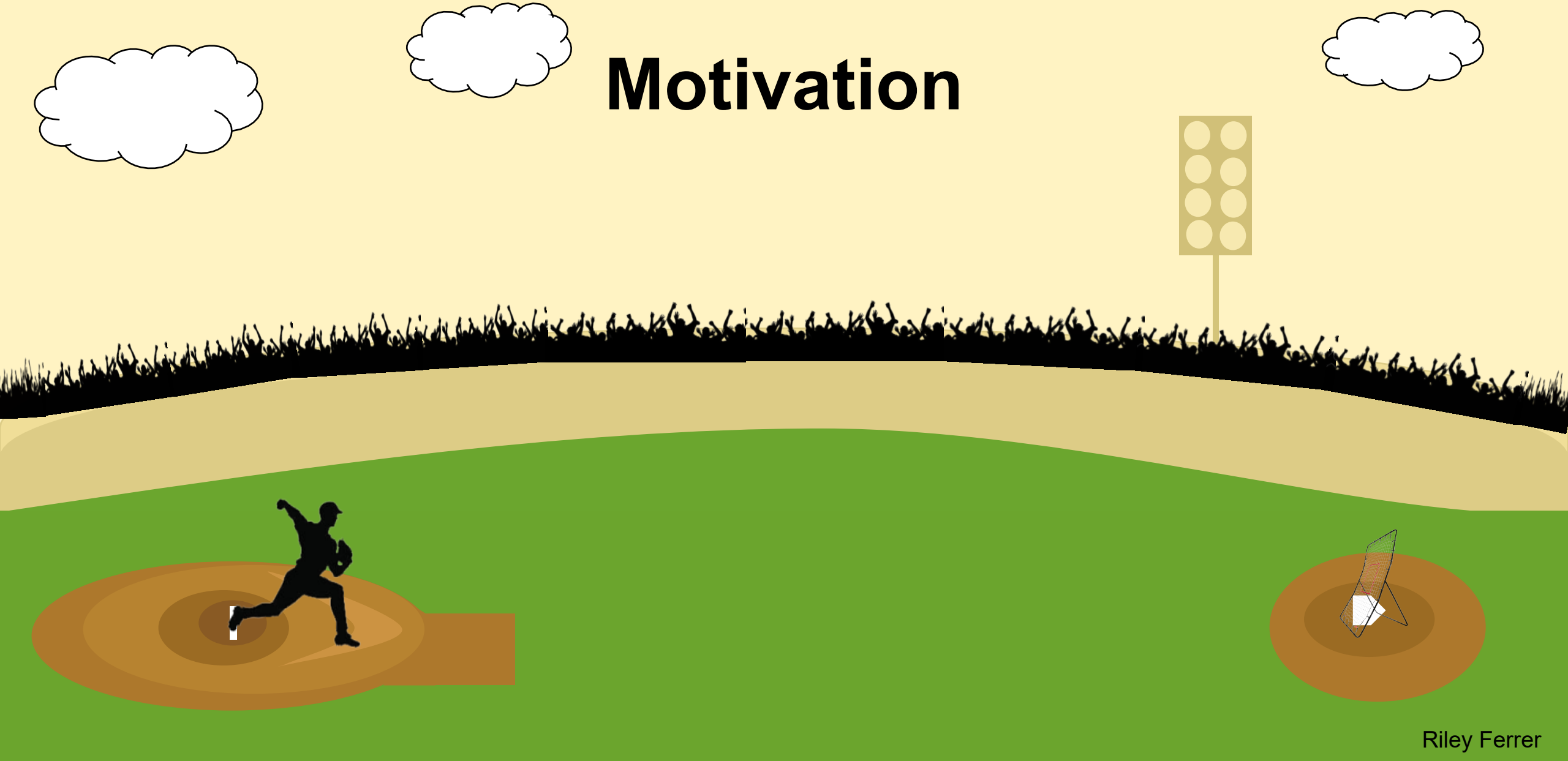
Riley Ferrer

Motivation



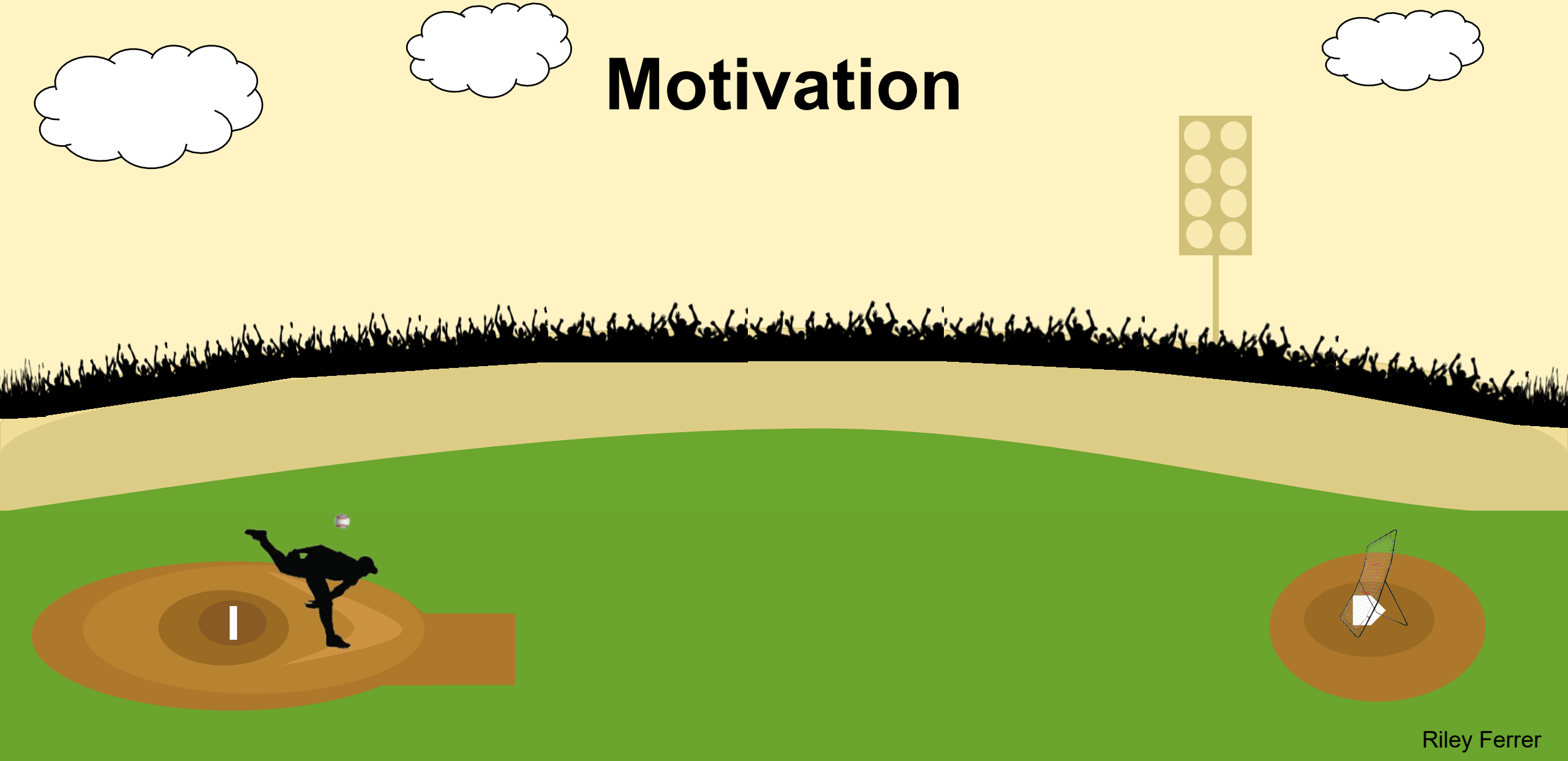
Riley Ferrer

Motivation



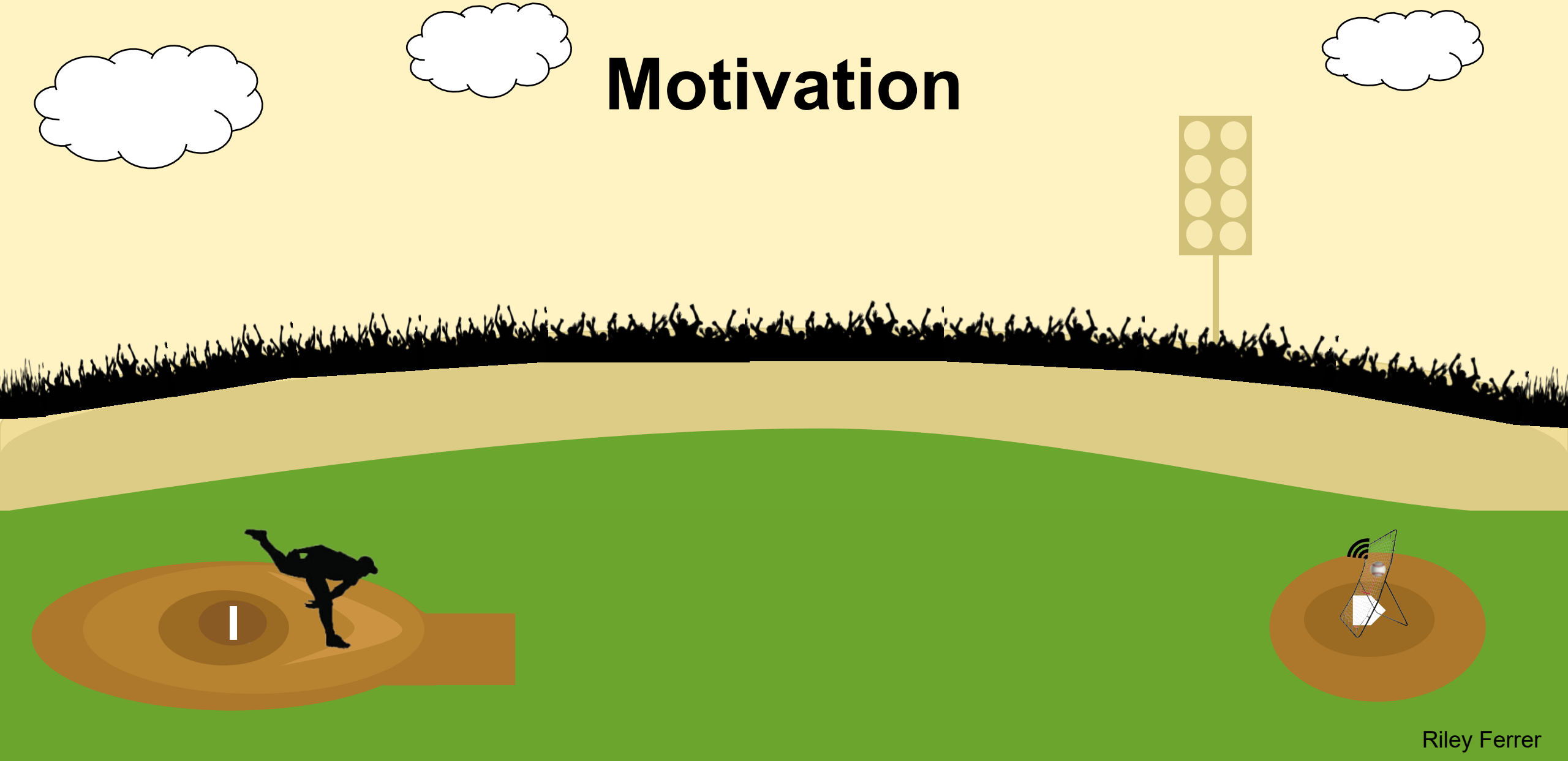
Riley Ferrer

Motivation



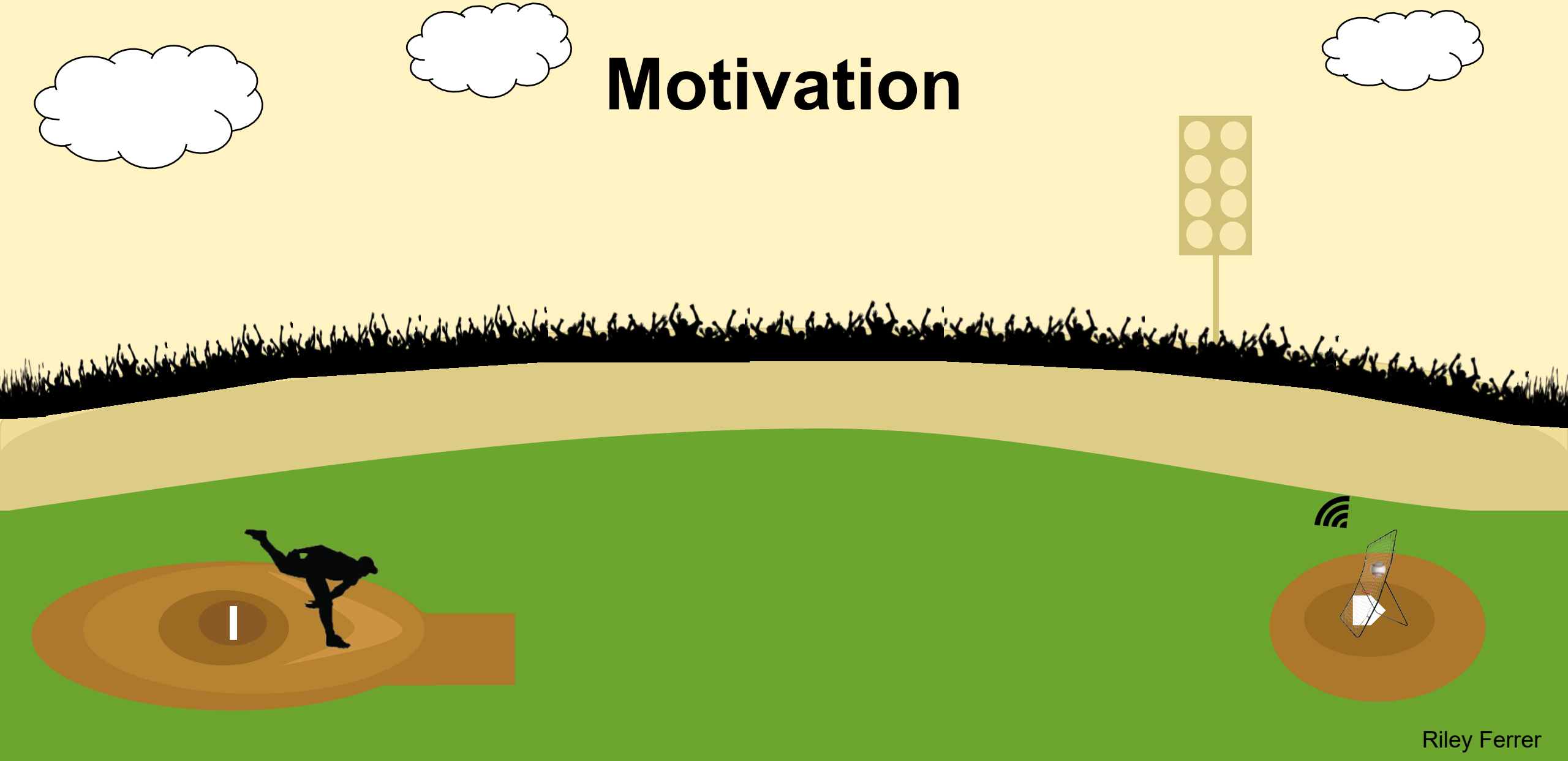
Riley Ferrer

Motivation



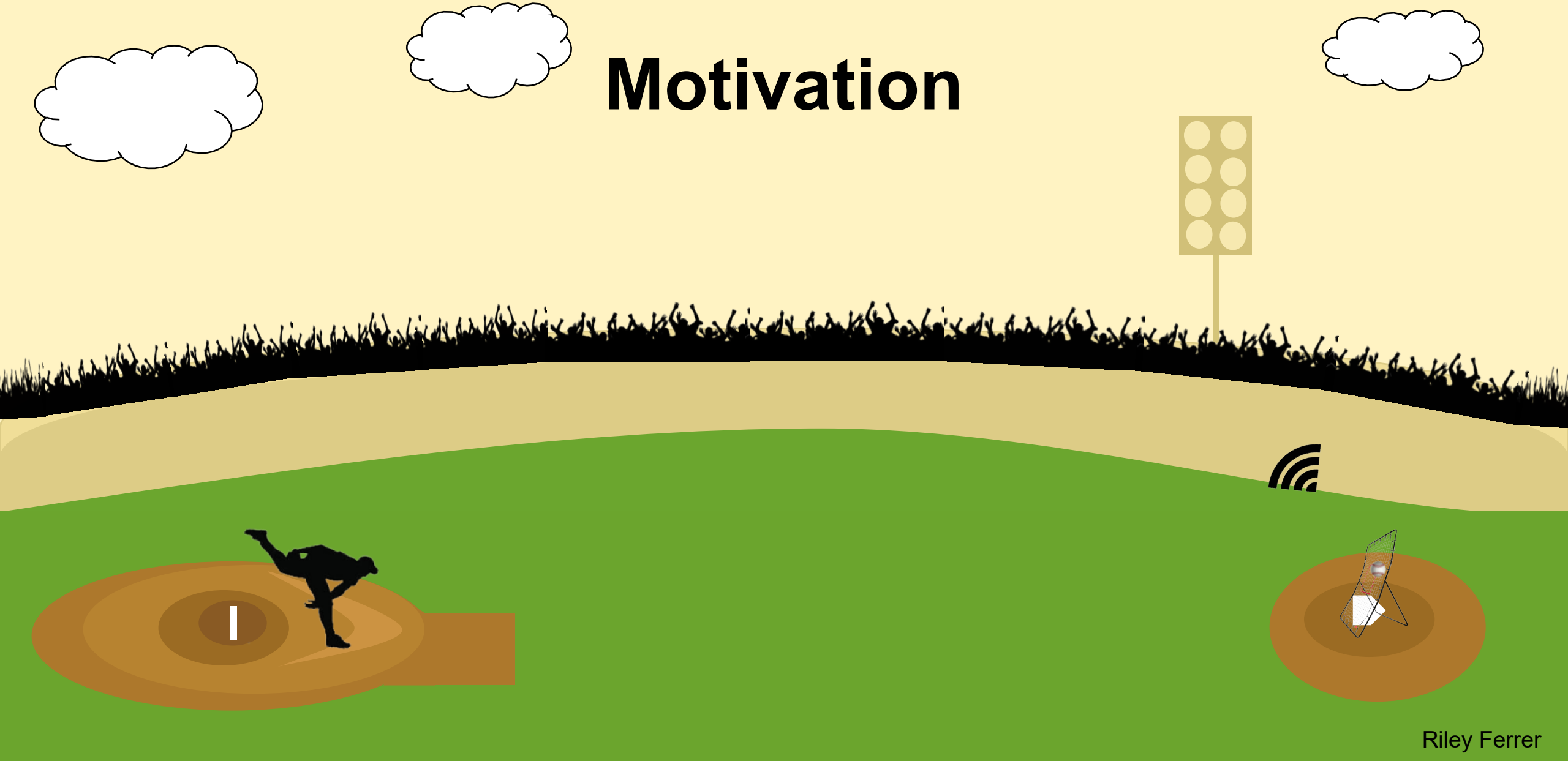
Riley Ferrer

Motivation



Riley Ferrer

Motivation



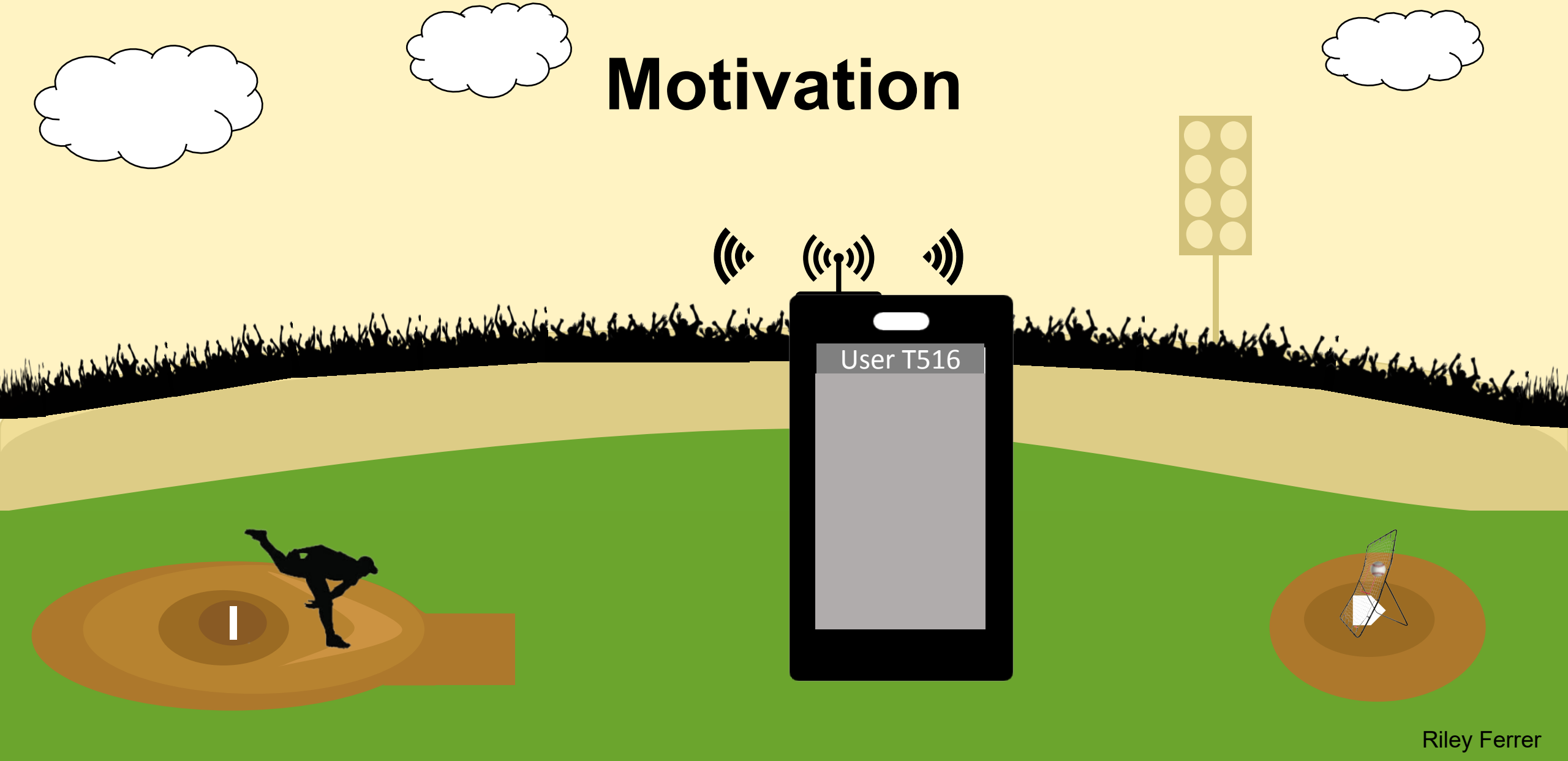
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Motivation



Riley Ferrer

Motivation



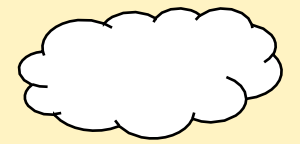
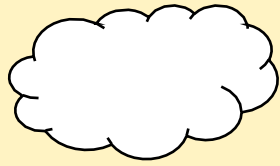
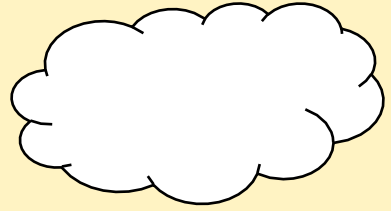
Riley Ferrer

Motivation



Riley Ferrer

Motivation



User T516
Fingertip
Forces

Middle
Finger = 117
N

Index Finger
= 115 N



Riley Ferrer

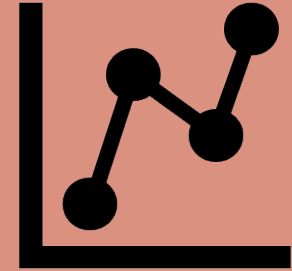
Key Goals



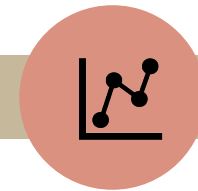
Develop accurate method of measurement



Maintain the original characteristics of a ball

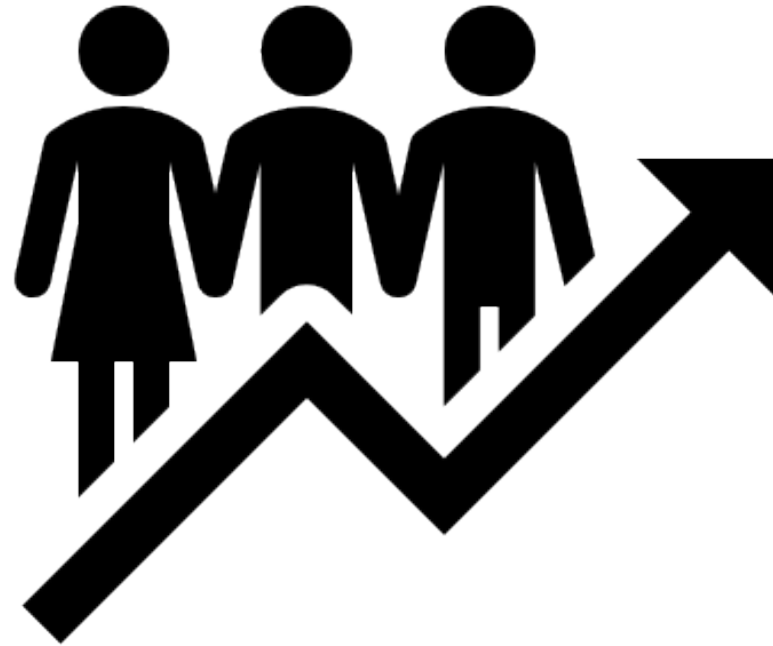


Facilitate access to the gathered data



Riley Ferrer

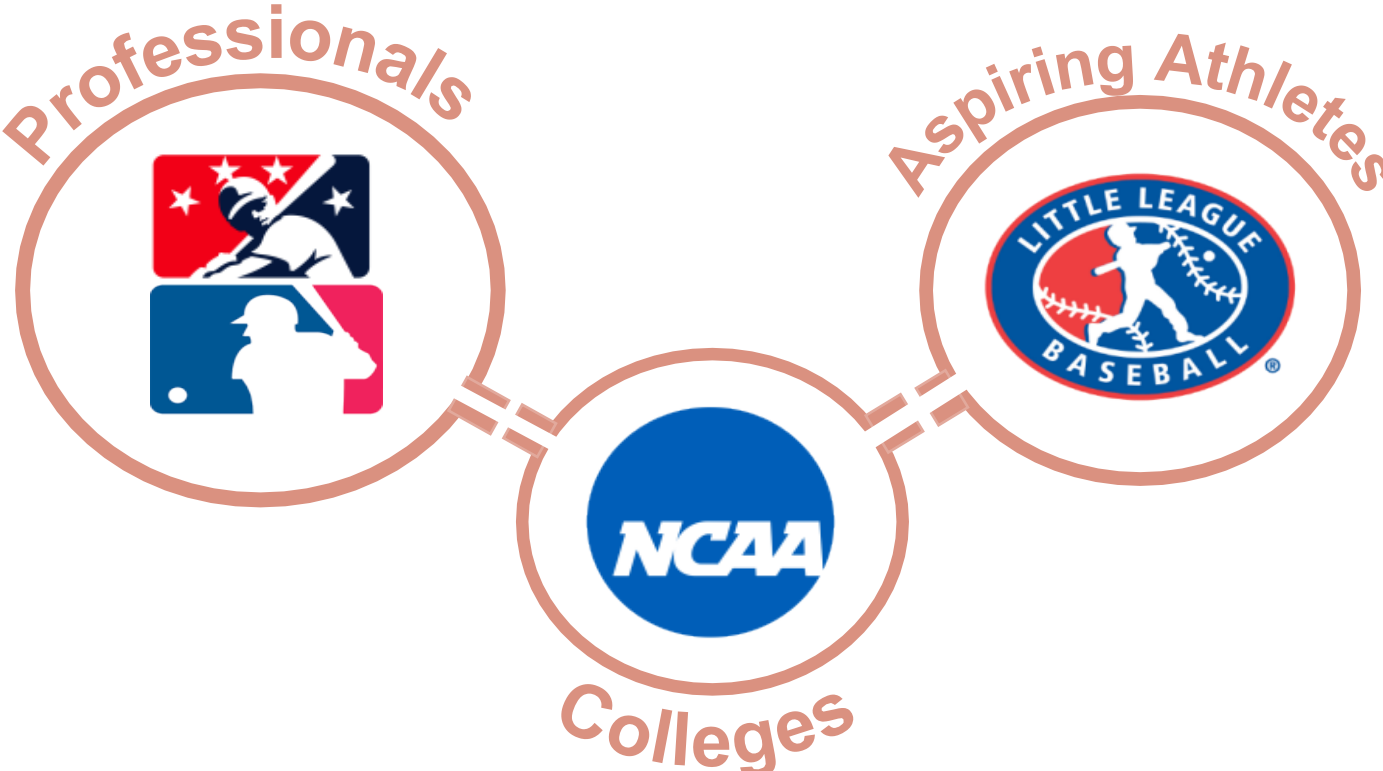
Markets



Charles Whitaker

Primary Markets

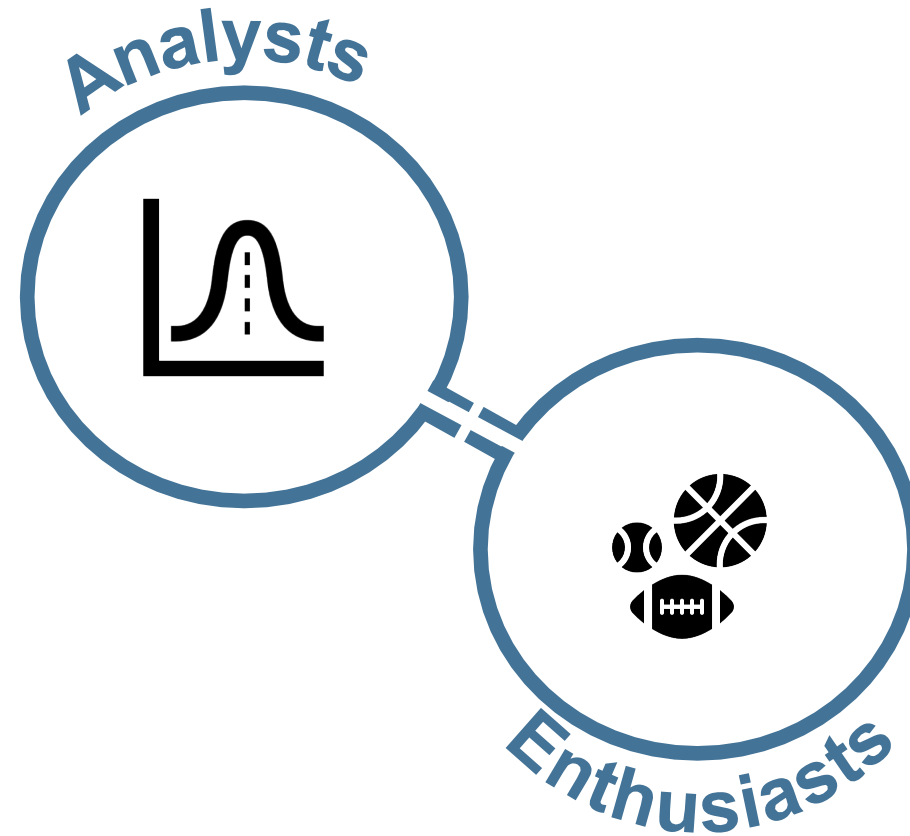
Secondary Market



Primary Market

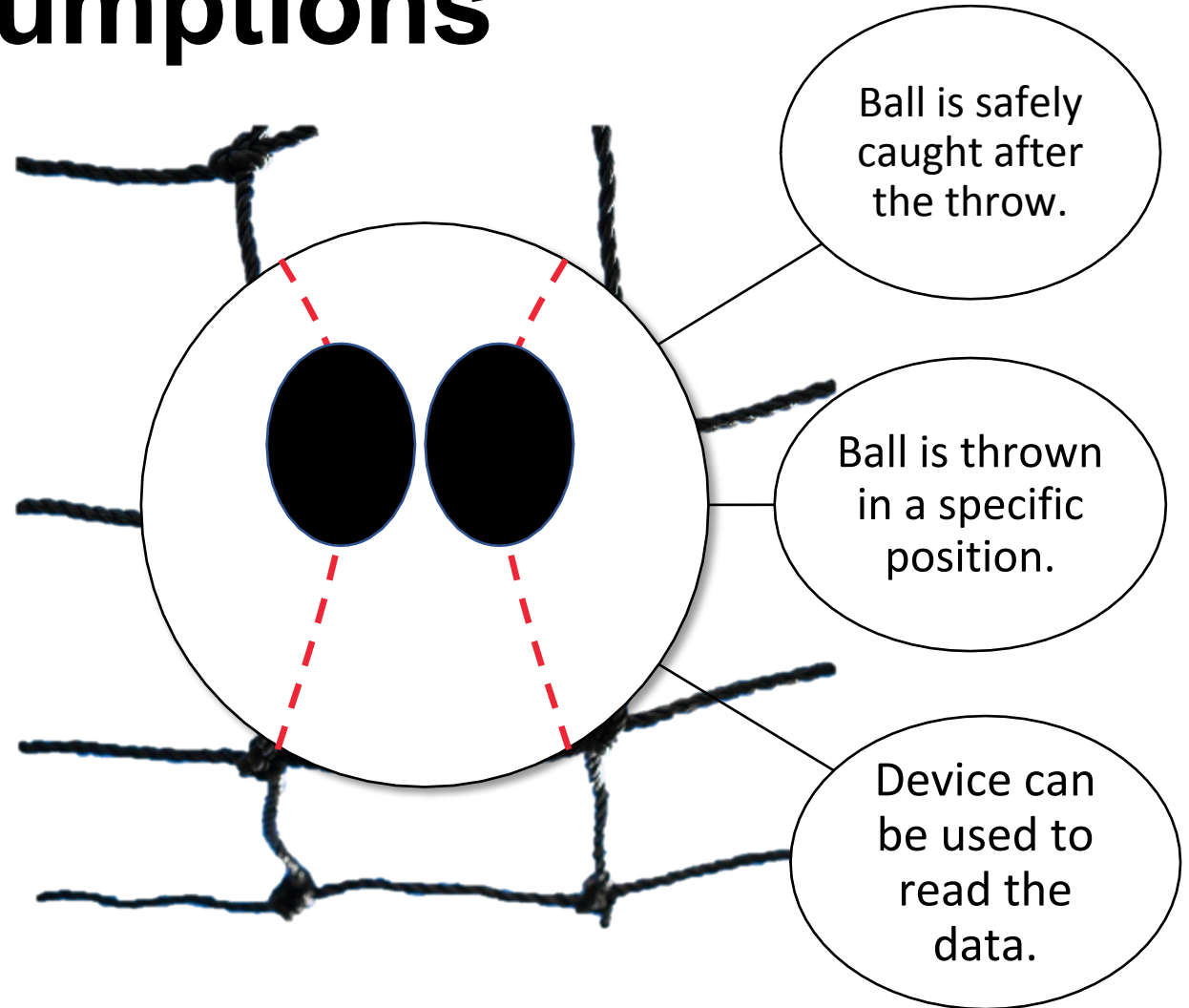
Charles Whitaker

Secondary Markets



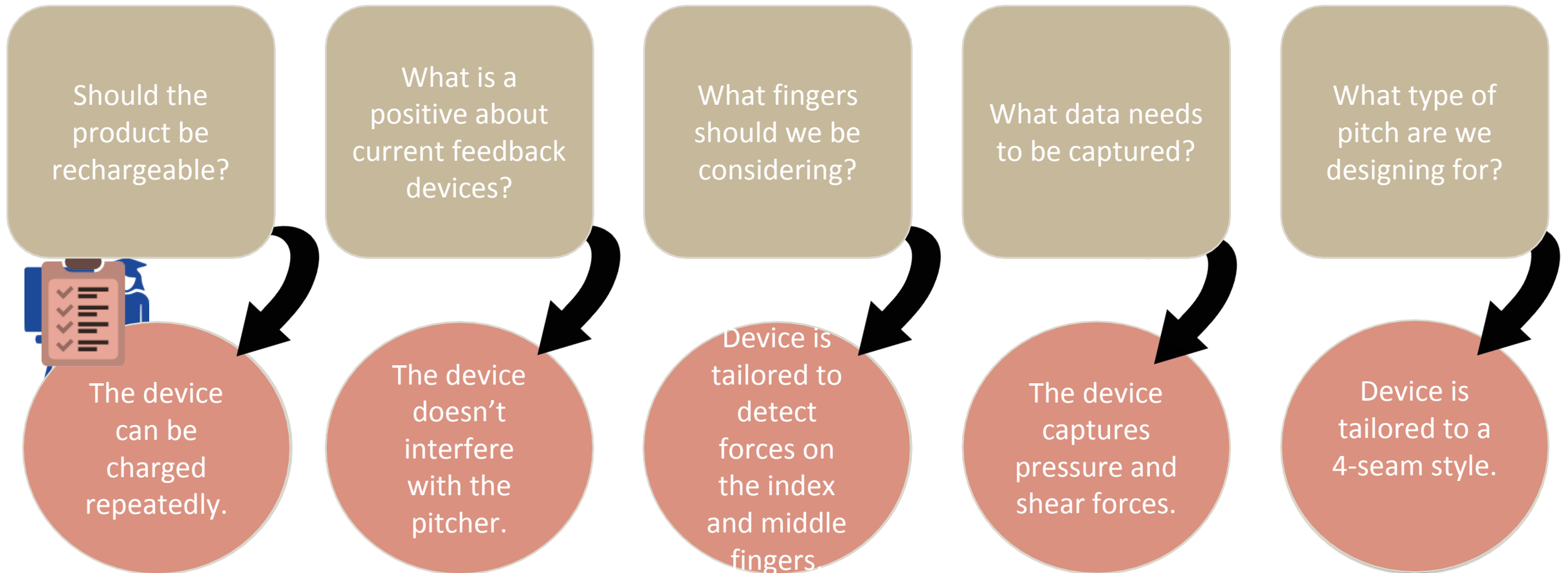
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Assumptions



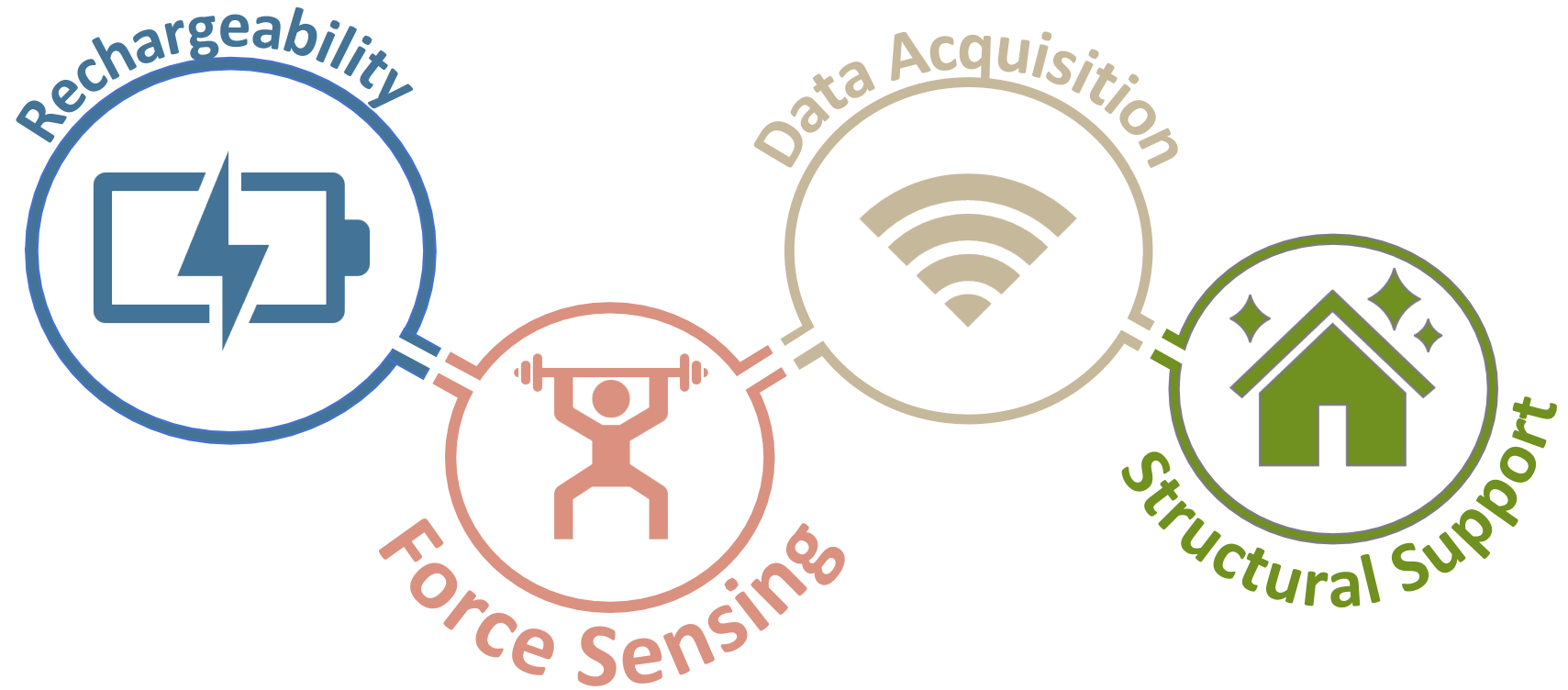
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Customer Needs



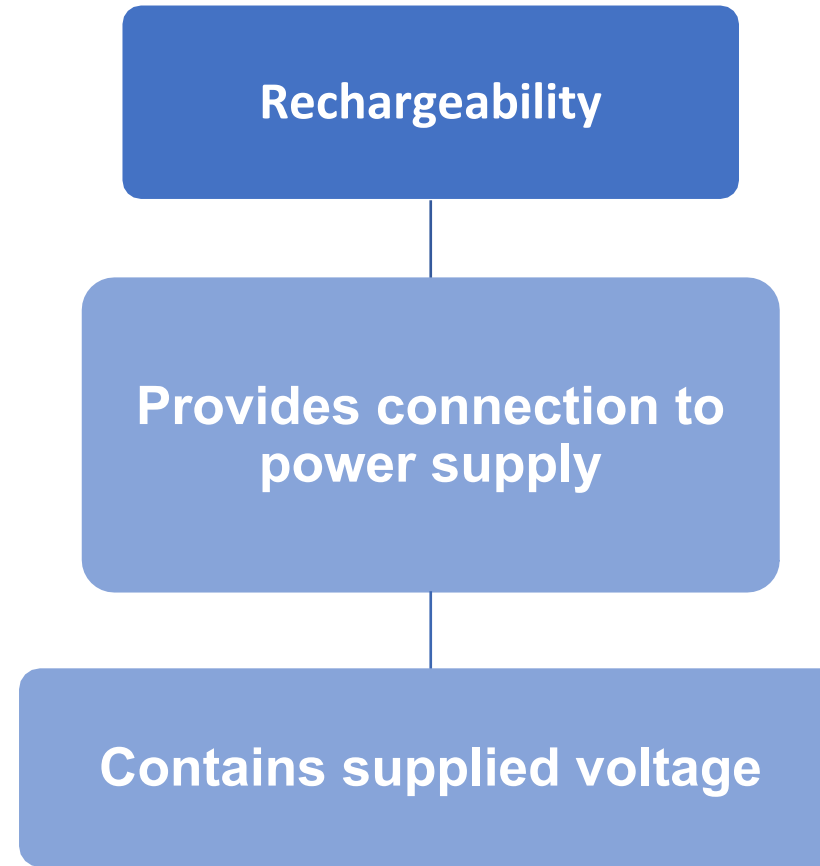
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Functional Decomposition



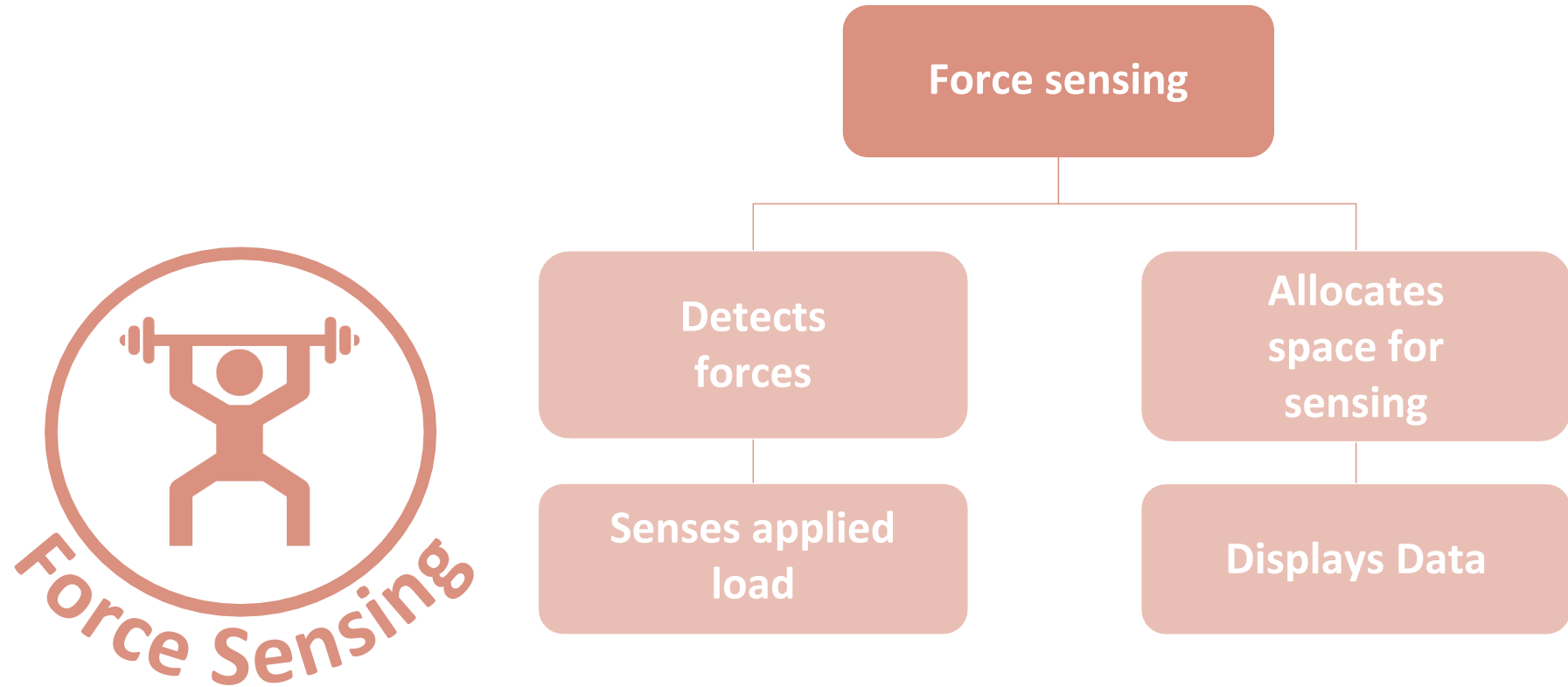
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Functional Decomposition



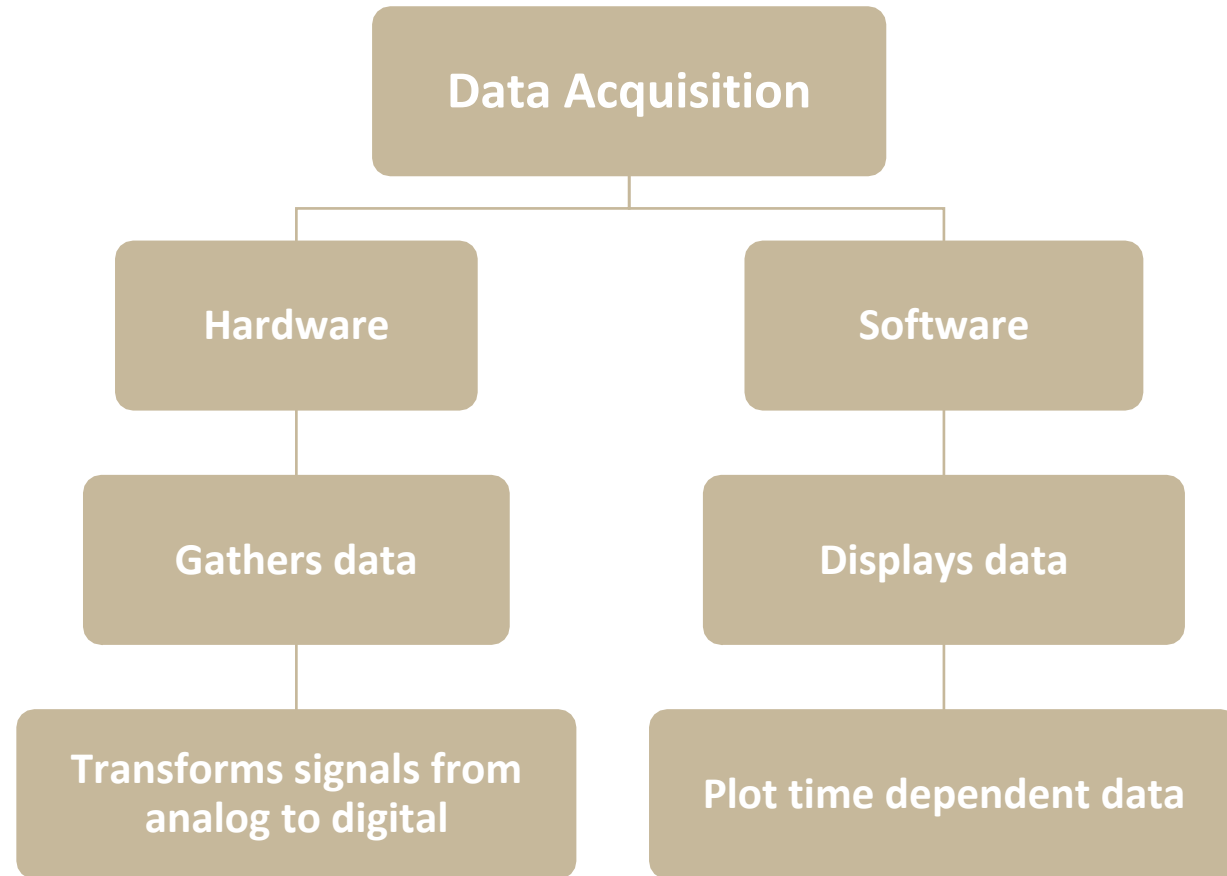
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Functional Decomposition



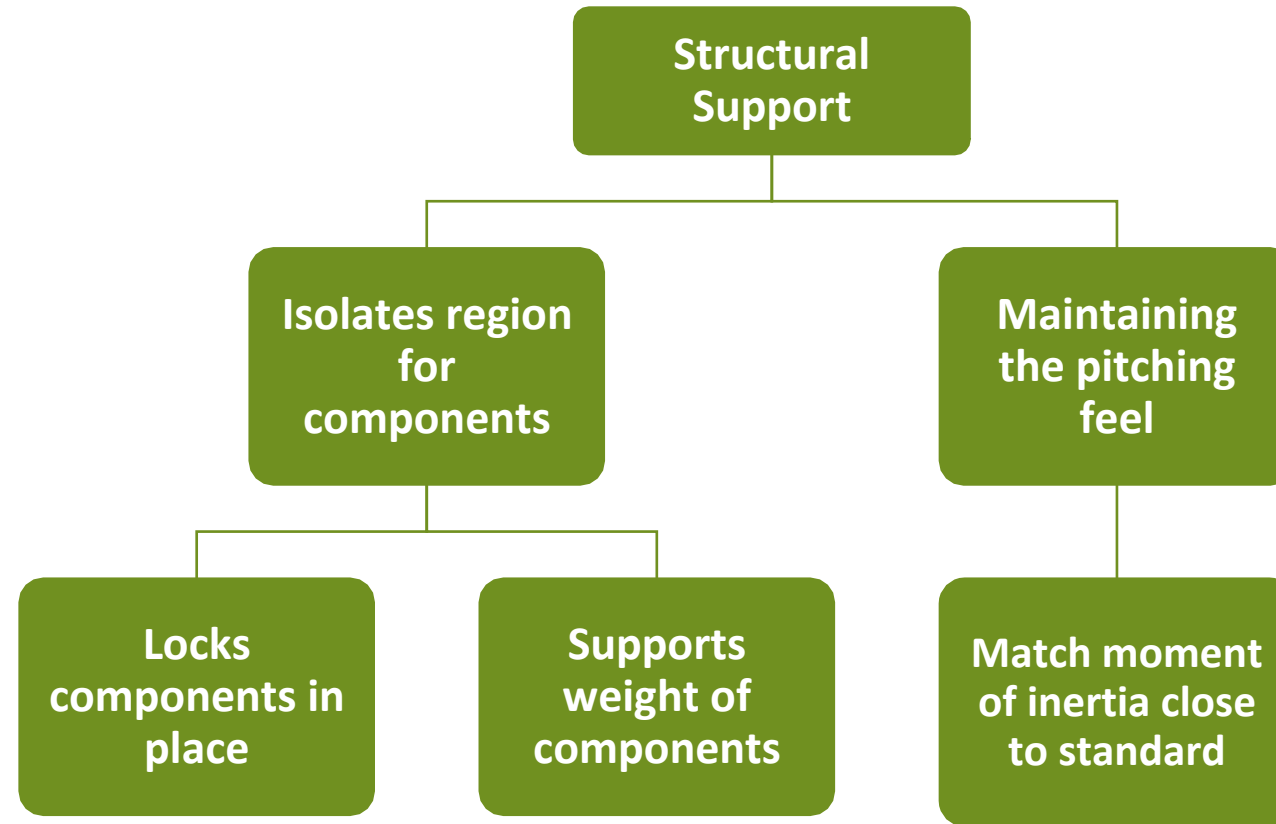
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Functional Decomposition



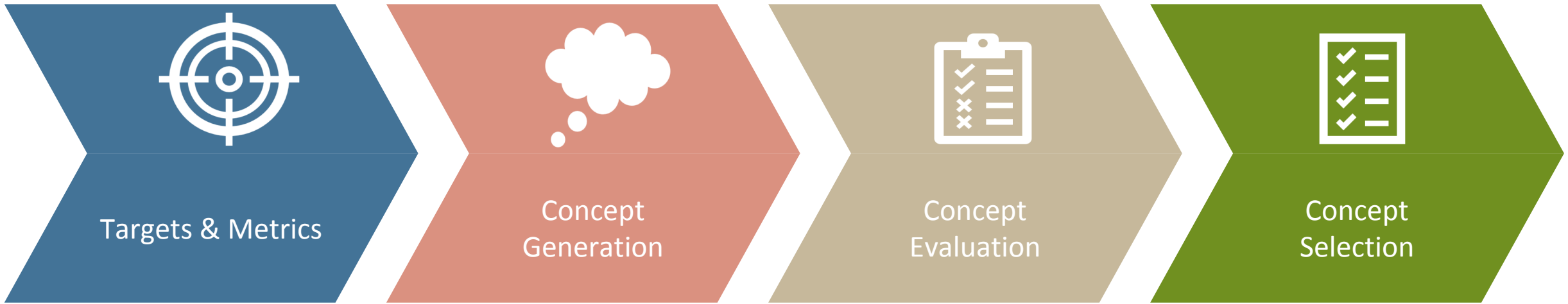
Charles Whitaker

Function Decomposition



Charles Whitaker

Future Work



Charles Whitaker



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